

(57)

INTRODUCTORY LECTURE

ADDRESSED TO

THE STUDENTS AND LAY FRIENDS

OF

The Sheffield School of Medicine,

DELIVERED IN FIRTH COLLEGE, ON 1ST OCTOBER, 1885.

BY

R. J. PYE-SMITH, F.R.C.S.,

SURGEON TO THE SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY, LECTURER ON
PRACTICAL PHYSIOLOGY IN THE SHEFFIELD SCHOOL OF MEDICINE.

SHEFFIELD:

LEADER AND SONS, PRINTERS, 18 & 20, BANK STREET.

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1885.



With the Author's Compliments.

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CONCLUSION.

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MR. PRESIDENT, LADIES AND GENTLEMEN,—As the representative for the hour of the Sheffield School of Medicine, I hope there is something to be said for that School which will appeal to the sympathy and interest of the public; but my first duty to-day is to address our own students, and more especially those who are now entering here for the first time.

To all such, then, I offer, in the name of my colleagues and myself, a hearty welcome. But we would not only welcome you, we may venture also to congratulate you on the choice you are making to enter the profession of medicine.

It is a noble profession. Its followers are called on to care for the sick and suffering among their fellow-men. In some cases the 'caring' for them is so successful that it amounts to 'curing' them, or, rather, enables the living forces of nature to work a cure when skilfully guided by art. But in the numerous cases where this cannot be hoped for, can no real help be given? Is it not something to be able to predict the probable course and duration of the malady? to warn if it be likely to prove fatal, or to relieve from such anxiety? Is it nothing to alleviate pain and to give comfort in weakness and hope in despondency? Is it not something, higher even than cure, to apply the means which lead to that far-reaching and prolific result, the prevention of disease? Surely in the fulfilment of such aims as these real help is rendered to our fellow-men.

And it is man pre-eminently among the animal creation who sorely needs such help. Endowed with a highly sensitive body and with a mind capable of the keenest anguish, as well as of sympathy with the suffering of others, illness, as well as death, becomes to him a far more terrible thing than it can be to the brute creation; and his very civilization, whilst it has substituted the decay of old age for the quick and early death by violence which was doubtless the rule in his savage condition, as it is still among the brutes, has also paved the way for much accidental and preventible disease. This is to be traced partly to the natural span of life being more fully attainable under the safeguards of peace and order, the extension being necessarily into the declining and therefore weakened period of life, and partly to the luxurious habits which have always hitherto been attendant on civilization.¹

It is the aim of medicine, not indeed to lengthen the allotted span of human life, but to prevent and check those morbid states which so readily arise in declining vitality, and to alleviate all the painful and distressing conditions of body to which even the strongest are constantly liable. Hence the study to which you are called is the natural history of disease as affecting man, its causes and its results, together with all such collateral subjects as tend, directly or indirectly, to throw light on its prevention and treatment.

It is obvious that such a study involves an intimate acquaintance with the human frame; nay, it is upon a knowledge of that living body, its construction (or Anatomy) and its functions (or Physiology) that all true knowledge in medicine must rest.

What a high and sacred subject for study is thus presented to us! The physical frame of man, with all its parts and organs, each complementary to the rest, all necessary for the fulfilment of its work; every part beautiful as well as useful, and beautiful not only to the unaided eye but wondrously

¹ See "Old Age and the changes incidental to it," by G. M. Humphrey, M.D., F.R.S.

beautiful in all the minutest details of its structure, as revealed to us by the microscope! The body, as a whole, surpassingly beautiful! And yet again the body but a part of the man; more wonderful, more beautiful, more lovely in his mind, and transcendently and infinitely noble in his "capacity for the reception of the Divine Spirit."²

But there is another aspect in which the profession of medicine is a noble one. Not only are its aims noble, and its subject, but its practice is noble also; and the nobility here consists in the readiness of the physician to sacrifice his life in the fulfilment of his duties.³

The soldier who deserts his post in time of battle is unworthy of his profession. The minister of religion who proves false to his convictions when persecution assails him is unworthy of his calling; and so the doctor who neglects his duty when the dangers of infectious disease threaten him is unworthy of his noble art.

Nor are the risks to life the only sacrifices he is called upon to make. He is constantly incurring risks, at the hands of the unprincipled and of the ignorant, of actions at law; as where an operation to save life has been unsuccessful;⁴ or where the morbid state of an epileptic patient's mind has suggested a charge of crime wholly unfounded, save on the diseased imagination of the patient;⁵ or, again, where the signing of a lunacy certificate has involved a medical man who has honestly exercised his best judgment on the case in an expensive law suit.⁶

But, gentlemen, all these and other risks must be loyally accepted by all who would enter the profession of medicine. We must operate, in spite of possible untoward consequences

² Sir Wm. Bowman (Address in Surgery, read at Annual Meeting of British Medical Association, 1866).

³ See Ruskin in "Unto this Last."

⁴ See case of Messrs. Bower and Keats, *British Medical Journal*, 15th December, 1883.

⁵ See case of Dr. Bradley, *British Medical Journal*, 28th February, 1885.

⁶ See cases, *British Medical Journal*, 14th March, 1885.

to ourselves ; we must attend epileptic patients, in spite of the risk that they may slander our good name ; we must examine persons represented to be of unsound mind, and faithfully sign or refuse to sign certificates of lunacy to the best of our judgment, in spite of the annoyance and loss such duties may possibly entail upon us. In all such respects it should be true of the surgeon as of the Christian :—

“ He holds no parley with unmanly fears ;
Where duty bids he confidently steers.”⁷

There is, I believe, at the present time a high standard of professional morality and honour in our midst. Let it be yours, in the spirit of justice and of charity, still further to raise it !

Something more, however, than good and noble intentions is requisite for the performance of any man's work in life. And I believe it is true that “ we fail to do good work much more from lack of knowing how to do it than from disinclination for it.”⁸ It is because you know that if you would enter the medical profession you must learn its principles and its practice that you have come here, to enter at a legally recognised Medical School, and in so doing you have in reality taken the first step in the knowledge that you seek. For knowing how to learn means, very much, knowing where to go for the information that is needed.

Let me, then, tell the first year's men, who have come here for instruction, where they will have to go and what they will have to do in order to gain a competent knowledge of the healing art. But first I should like to say a few words to any who may be here to-day with the hope of entering another year, but without the intention of commencing their medical studies at once.

I think it is a great advantage when a young man can have a year's study between the boys' school, or the college, and the medical school. The teaching in most schools for boys is

⁷ Cowper (Reflection on an Ode of Horace).

⁸ Rev. Ed. White (Sermon at Centenary of Sunday Schools, 1880).

so devoid of anything in the way of science, that it becomes a matter of some difficulty to the student to give up suddenly the schoolboy method of learning from books regarded as absolutely authoritative, and to turn to the acquisition of knowledge by his own personal observation and with no absolutely authoritative teacher but Nature herself. I think, therefore, that when a year can be spared before entering at the medical school, it may be most usefully spent in the study of some of the natural sciences and certain other subjects for which such a year can afford the best, perhaps the only, opportunity. We are fortunate in being admirably provided within the walls of this college with means for following such a course.

Amongst languages, the study of one's own mother tongue is, of course, of paramount importance, and it is often of much practical value to a medical man, in whatever kind of work he may be engaged, to be able to express himself well both in writing and in speaking. A moderate acquaintance with Latin and Greek is very helpful to the student in understanding the scientific terms he will be constantly meeting with. Whilst a knowledge of French and German (especially the latter) will enable him to extend his reading, and perhaps his practical studies, beyond the limits of his own country.

In the exact sciences, a good knowledge of elementary Mathematics and Mechanics will stand him in good stead in his study of Physiology and some other subjects, and he will find use for all he can learn of Chemistry and Physics, especially in relation to heat, light, sound and electricity.

But it is with the natural sciences of observation that his time should be chiefly occupied.⁹ Any one of these will be useful, and according to his tastes and opportunities he may

⁹ An article on "The training of the Senses," which appeared in the *British Medical Journal* of 10th October, 1885, reminds me that I ought, in this connection, to have noticed the study of Logic. The writer of that article justly remarks:—"No faculty is more essential to success in life than correct observation, and this faculty is most suitably cultivated by the natural sciences;" but "correct observation is practically valueless unless it become the parent of accurate deduction. Hence some knowledge of logic and of mental science is of the utmost moment to the scientist."

choose which he pleases, be it Entomology, Geology, or even Astronomy ; but there can, I think, be little doubt that, as a preliminary study, Botany furnishes at once the simplest, the readiest and the most practical example. Zoology should, however, also be taken up, the Anatomy and Physiology of the lower orders of animals forming such an excellent introduction to those studies in man, and affording an extended view of the relationships of our bodies which is of high interest. Such a preliminary study of Biology will do more than anything else can, in my judgment, to put the student in a position to make the best possible use of his opportunities when he enters at a medical school.

But there are sundry other subjects, a knowledge of which it is important for a medical man to possess, which may with great advantage receive attention at this stage of the student's career. First among them must be placed that of microscopy, which should indeed rather be regarded as a necessary part of the study of Biology. Drawing, if not previously learnt, may, by anyone, be readily acquired to an extent to render it of much practical use in making diagrams and sketches in all the departments of medical work. Photography may also be made of high utility in several classes of cases, and may, I believe, now-a-days, be learnt and applied with a very moderate expenditure of time. Both of these arts, especially drawing, will to some extent educate the fingers in a way useful to the surgeon ; but I think it is of decided further value for the student to take up some other exercise in manual dexterity, such as carpentering, cabinet making, or wood carving. A very valuable acquisition, and of use in various ways all through life, is that of shorthand writing. And a subject of which every medical man is supposed, and ought, to know more than he commonly does—for he has never been taught—is that of cookery.

Meteorology and Climatology again are subjects of considerable importance which may well be commenced before strictly medical studies begin. And where, as here in

Sheffield, there is an opportunity for it, I think it is very desirable for a young man intending to become a medical student to go through a course of instruction such as is given in connection with the St. John Ambulance Association, following it up, as opportunity offers, by familiarising himself with the practical details of sick-nursing.

One other subject I must mention which may be advantageously taken up at this period, provided that the opportunities for it are good, namely Pharmacy and Materia-Medica, the preparation and properties of medicinal drugs. This subject will derive light from Chemistry and Botany, and will, in turn, give interest to them. Under the new joint regulations of the Colleges of Physicians and Surgeons, students commencing professional study from to-day will be allowed to enter for an examination in these subjects immediately after registration as medical students, if they prefer to do so, instead of deferring them to the end of their first year.

But I must now turn again to those who not only have the profession of medicine as their goal, but who are this very day entering the lists, and I would remind you that, having made choice of the profession, it behoves you to seek earnestly to develop a fitness for it. No man is born a doctor: he must be fitted for that position by education; and such education is truly a development—a development of body, of mind and of character. Formless and even chaotic at first, the knowledge acquired will after a time take shape, and then there will follow a quickening of the powers of the mind and the birth of a quiet confidence, begotten of well-arranged and thoughtful work, to be nurtured by the steady performance of that work throughout the student's course. Nor can a just though modest confidence be maintained in after life without the continuance of such habits of diligent self-education; for the motto of our profession is "once a student, always a student." What mighty power has habit! Begin from the first as a good working student, and the habit will stand you in better stead than brilliant powers without steady work,

And, indeed, long and patient work is needed, for every sense must be educated for its special tasks: the taste, that drugs may be recognised: the smell, that not only drugs and poisons but some diseases also may be detected: the hearing, that the sounds of the lungs and heart may be ascertained: the touch, that the physical conditions of all accessible parts of the body may be determined: the sight, that the sufferer's expression of countenance may be read, and that the various parts of the body may be inspected and their appearances interpreted, whether the inspection be made by the naked eye or with the aid of apparatus of various kinds.

Every faculty of the mind, too, must be drawn out, and you will find in your proper studies ample scope for the cultivation of them all. Thus the *memory*, on which so much depends in all work, will find special exercise in the facts of anatomy; the *attention* will be called fully into play at the lectures, whilst the *observation* will be quickened by every department of practical work, and be more and more utilized throughout the student course, and the *judgment* will be developed later on in the treatment of patients.

Again, remembering the dictum of Bacon, that "reading maketh a full man, conference a ready, and writing an exact man," you will find abundant occasion for reading, both in text-books and monographs, and so acquainting yourselves with the work and views of other and abler men. And as to conference and the quickness and readiness that comes of it, are there not the *viva voce* examinations, when you have not much time to consider your answers? And have we not a Students' Debating Society, where you will be able to meet each other in friendly and profitable discussion? And then for the cultivation of exactitude, the written examinations are a most valuable exercise, whilst the same habit is engendered by constant efforts at the exact diagnosis of cases, and by attending the *post-mortem* examinations and comparing the conditions you then see to have existed with what at the bedside you thought you had detected.

And, finally, there are powers of the will as well as of the intellect, of the conscience and of the heart as well as of the head, and all these will be naturally and inevitably evoked by the cases of disease and distress with which your later and ultimate work will bring you into constant contact.

A good deal has been said and written about the relative value of reading and lectures. It seems to me that it is a great advantage to most men to have the benefit of both, for whilst it is true that text books now-a-days much more nearly reflect the practice of the foremost men in the profession than they did half a century ago, so that the substance of most lectures may be got from books, yet it still remains true on the other hand that teaching is often more readily grasped when conveyed by word of mouth than when presented in the form of a book, and has a better chance of awakening enthusiasm, or, at least, of stirring to effort. But remember that however well you may be able to learn from lectures and however much you may acquire from books, neither of these methods of instruction, nor both combined, can take the place of bedside instruction and personal observation and practice. Hence the examining bodies very rightly demand of every candidate for their diploma, not only that he shall evince a certain standard of knowledge, as ascertained by an examination, but also that he shall produce evidence that he has passed so many months in the wards of a hospital, that he has himself practiced the manipulations required in the practical courses, and that he has performed, in a manner satisfactory to his superior officer, the duties of various clinical posts of subordinate but very real importance.

In work so varied and so new to you, you will no doubt often feel the need for asking questions and seeking advice and explanation. This, I am sure, will be readily given you both by the various lecturers, physicians and surgeons, and by the tutor at the Medical School. But if you would be answered with unimpeachable accuracy, and with a vividness that will impress the answer on your memory, you must ad-

dress questions to that infallible teacher, Nature, and you must be willing to ask and ask again, with patience, with humility, with single-mindedness and in faith.

Thus will your first great object be attained—the gaining of an accurate and trustworthy knowledge of your profession. But remember that your character is being formed, not only in accordance with your conduct in this chief respect, but also by all your habits and associations. Be careful, therefore, whom you make your friends; your choice of them may be limited, but their influence on you must be great. Be slow to choose, but, having once chosen well, never lose them.

Remember, too, as most of you will no doubt without urging, that you cannot wisely spend the whole of six days every week in study. Leisure and recreation are needed, not only for the preservation of health and for the avoidance of dullness; they are equally requisite for the due cultivation of the social side of life, and for fostering the growth of that quiet reflection without which continuous thought is in danger of being forgotten in the whirl of modern life.

Football and cricket supply muscular exercise enough for those who are strong and agile, and, for the less athletic, we are greatly favoured here in Sheffield with a magnificent neighbourhood for good walks; whilst, in the cultivation of Art, few towns in England have such advantages as are freely provided for us here in the unique collection of treasures at Walkley, sad though it be for us to ponder our loss of that grander scheme which had been so liberally devised for us by Mr. Ruskin.

Such, then, are some of the main considerations that should engage your early and continued attention during your acquisition of special knowledge: the cultivation of the senses and of all the faculties of the mind, the observation and questioning of Nature, the formation of habits of efficient study, moderate and congenial recreation and rest. But all your work must be done practically, and, that you may not, with so much generalization as I have indulged in, be left in doubt as

to where to begin, let me tell you that your first studies at the Medical School must be Anatomy and Physiology, the structure and the functions of the body. These are the two great foundation stones on which rests the whole fabric of the healing art. Without this foundation no superstructure of good material can stand ; with this foundation badly laid, the building can never attain its just proportions ; but, based on an accurate knowledge of the essential facts of these two branches of study, the edifice of knowledge may, by continued effort, be raised into a noble structure, affording refuge to many an afflicted sufferer.

Now is your time for gaining this knowledge, the present opportunity lost can never be replaced. Begin therefore at once by patient study of the bones and by diligent dissection of the other parts of the body, and when, at the end of the winter session, you have gone through the first course of Anatomy and Physiology, and the course of Chemistry, you will find yourselves prepared for the examination that awaits you and ready to proceed to other work.

As some of the examining boards have recently materially altered their regulations, I may briefly indicate the curriculum as now adopted by the Conjoint Examining Board for England, which grants the double qualification of Member of the Royal College of Surgeons of England and Licentiate of the Royal College of Physicians in London. I take this as the best example for the average student's course. Those who wish to obtain a university degree must be prepared to expend a longer period of time on their studies, or else, indeed, to sacrifice to more theoretical studies a great deal of what is most important in the way of practical work.

The first thing, then, required of a candidate for the medical profession is the passing of a preliminary examination in subjects of general education.

The second thing necessary is registration as a medical student, which can be effected only when he has entered at a

medical school or commenced medical study in some other way recognised by the General Medical Council.

Thirdly comes preparation for and passing the first professional examination, at or before the end of the first year of medical study.

Fourthly, the second professional examination, at the end of the second winter session, and

Lastly, the third professional examination, at the end of the fourth year, on successfully passing which the student receives his diploma to practice.

But, though thus legally qualified, he will find he has much to learn before he can wisely undertake the sole responsibility of practice, and he may spend at least another year or two in special departments of study or in holding the post of resident medical officer to some public institution.

Such, then, is the course to which I have welcomed you and on the choice of which I have ventured to congratulate you. I should not be fully delivering my charge to you, however, without adding one word of warning. It is this: that it is possible for you to turn out badly. In spite of the advantages in your studies which a medical school affords, it is possible that you may never succeed in passing the necessary examinations and in obtaining a diploma to practice. Before you begin, then, to build, sit down and consider whether you will be able to finish: consider your physical strength, your mental capacities, your tastes and general aptitude, as well as your pecuniary position, and do not seek to enter the profession contrary to your own judgment and that of your friends.

It is possible, I say, that you may be disappointed, and may fail from no worse fault than a mistake of judgment; but it is possible also that you may yourself disappoint the hopes of those who care for you; you may, by thoughtless and indolent habits, by bad associations, or even by vain self-confidence, become an idler, and leave unused the talents committed to your care and the precious opportunities of youth. Oh! the pitiable position of the man who, having

spent his time and means without attaining to his aim, is tempted, for the sake of a livelihood, to the deceptions and degradation of unqualified practice! The issue of your student's course is in your own hands, for "whatsoever a man soweth, that shall he also reap."

The session we inaugurate to-day is not, however, the first step with many of our students. You, who have already spent a year or two at our medical school, I would congratulate on the progress you have made, and upon your entry on the still more interesting part of your course. Clinical work and the application of your Anatomy and Physiology will now demand more of your time and attention, and as Anatomy can be learnt nowhere but in the dissecting room, so can Pathology be learnt nowhere but in the *post-mortem* room, and diagnosis only in the examination of patients, whether in the wards of a hospital or elsewhere. Let me urge upon you special attention to these two subjects (Pathology and diagnosis), for now is the one opportunity in life that you are likely ever to possess of gaining a good knowledge of them. Much of the details of treatment and of the experience which teaches prognosis can be learnt later on and by private study, but, unless you now, in your hospital course, avail yourselves of the opportunity for studying pathological Anatomy, you will never become familiar with it, and you must then for ever lack the most solid basis on which rational treatment can rest. And, unless you now systematically study and familiarise yourselves with the physical conditions on which exact diagnosis chiefly depends, you will never be able to fit yourselves for the practice of your profession. Work then in the wards of the hospitals, in the out-patient rooms, in the casualty departments, and in all the other similar ways open to you. Above all, be sure to hold the clinical appointments that are open to you at the public medical charities; you cannot but find them highly interesting and instructive, though their full value will not be appreciated by you till you are thrown on your own resources.

Then, when the sense of your responsibility for the lives of your patients presses upon you, will you realise the importance of the training they will have afforded.

But do not think that I mean that you can pick up everything in the wards. The value of lectures and systematic reading I have already spoken of, and you will find, I think, that the most effective and the most interesting reading will be that which you undertake in connection with any case you are watching, whilst the clinical lectures on cases you can see in the wards can hardly fail to be similarly useful.

Observe and note all that concerns the comfort and well-being of the patients, remembering that the doctor should always be the head nurse. Much may be done in all departments of our profession to comfort and relieve; and in many cases, as for instance in mere senile decay, we cannot expect to do more. Here vigilant watching and careful nursing, with kindness and sympathetic attention, must take the place of active remedial treatment. There are limits to our art, and it is one of the duties of our profession to enlighten the public as to what can and what cannot be done by medical or surgical skill. If none in our ranks pretended to cure where they know they cannot, and left such vain boasting to unqualified and unprincipled advertisers, we should enjoy, as a profession, still more than we do at present, the confidence and respect of the educated public. And again, if we were all a little more modest and careful in expressing an opinion on some special point on which we know that we are ill-informed or ignorant, we should not be twitted by the laity on the strange divergencies of opinion displayed by different medical men.¹⁰

But in spite of the individual ignorance, for which there must ever be abundant room in a field wider, perhaps, than that of any other profession, and in spite of the necessary limits of our art, there are happily many cases in which a well-instructed practitioner can directly save life; and in the

¹⁰ See Report of Introductory Lecture delivered last year by Mr. Birks. (*Sheffield and Rotherham Independent*, 2nd October, 1884.)

well-directed endeavour to add to the list we shall not only earn the respect of our professional brethren, but we shall also avoid that spirit of cynicism, so detrimental to progress, which is bred of a knowledge that medicine is not an exact science, and is therefore liable to mistakes, together with a lack of clear and trustworthy knowledge of that which may be definitely known, namely, those scientific principles and well-ascertained facts on which the most helpful part of medicine depends. Not in cynicism, still less in conceit, can we find strength, yet we may find it—

“ In the soothing thoughts that spring
Out of human suffering.”¹¹

And in that strength we can invoke duty and cry—

“ The confidence of reason give,
And in the light of truth thy bondman let me live.”¹²

I cannot be unmindful, Mr. President, ladies and gentlemen, that we are honoured here to-day by the presence of others than students of medicine. This hall is the centre of a wider range of thought and work, and we look hopefully forward to the day when Firth College shall become a vigorous branch of the Victoria University. Towards this, not only will the new technical school contribute, in a way, we may be sure, worthy of the reputation of the town for the arts of practical manufacture, but we may feel confident that the incorporation, already decided on, of Firth College and the Medical School, will be no less helpful.

Speaking as a member of the staff of the Medical School, I may say that we on our part are satisfied that incorporation with Firth College will be undoubtedly to our advantage. As an individual resident of Sheffield, I feel certain that such a step is equally well calculated to advance the higher interests both of the college and of the town at large. And I feel that in appealing to the public, as we are obliged to do, for pecuniary help in the erection of a new building, we may con-

¹¹ Wordsworth. (“ Ode on Intimations of Immortality from Recollections of Early Childhood.”)

¹² Wordsworth. (“ Ode to Duty.”)

fidently base our case on the ground that medical science has strong claims on the practical sympathy of the public.

In the first place its main object is to preserve the health, lessen the suffering, and save the lives of the members of the community. And in the second place the practitioners of the art receive for their work neither such titles nor such pecuniary rewards as fall to the majority of those who devote an equal amount of time, skill and money to other professions or to commerce.

I think it is well for the profession, though not, perhaps, so well for the State, that this is the case. At all events it enables us to put forward a claim when we need the sympathy and help of the public.

But looking at the matter in what may, perhaps, be called a more practical light, and appealing to less disinterested motives, I think it can be shown that in being provided here in Sheffield with an efficient medical school there must accrue to the whole community some great and practical advantages. They are mainly these:—

That a good school attracts good men to the town both as students and as teachers in the school.

That the teaching which is necessary in an efficient school not only provides a thorough education for the students, many of whom afterwards become practitioners in the town, but reacts also on the teachers, most of whom also are engaged in private practice, and thus a powerful influence is constantly at work, keeping the more public-spirited members of the profession up to a high standard of efficiency. For it is impossible for a man to be surrounded by a class of intelligent and questioning students without having the rust rubbed off some parts of his armour which private practice does not keep in constant use but which are quite necessary for the completeness and soundness of the suit. Nor does the influence stop even here. Other members of the profession cannot fail to be influenced by the exact and careful habits that are so engendered. And thus the public derive benefit from the

greater knowledge and intelligence of their own medical advisers, whether these be directly connected with the school or not.

Another advantage is that the clinical work done by the students of a medical school adds greatly to the efficiency of the hospitals. A staff of students enables fuller notes of cases to be taken and more elaborate methods of investigation to be carried out, both of which tend greatly to the elucidation of obscure cases, prevent oversight in more trivial ones, and give increased scientific interest to the entire work of the institutions, which cannot but conduce very materially to the well-being of the patients.

The last advantage I shall refer to is one that does not directly concern the entire community, but is nevertheless of great interest to parents who have sons wishing to enter the medical profession. To all such it is a serious drawback if they are obliged to send their sons to a distance, instead of being able to keep them at home during their student course, and to them it is an obvious advantage to have an efficient and flourishing medical school in their own town.

I think, then, it will be readily admitted that the public gain real advantages from the presence in their midst of a well-conducted medical school ; and, in appealing to them for funds for a new building, I would ask them to observe that the appeal is not on behalf of the members of the medical profession, but on behalf of those who seek to enter that profession ; not for the sons of medical men in particular, but for the sons of the upper middle-class public. The work of those who have hitherto carried on the school has always been gratuitous, the students' fees having been entirely devoted to maintaining the greatest efficiency practicable under the adverse circumstances of very limited space, few students and a low exchequer. Is it not time that so large and important a town as Sheffield should see that its Medical School, thus carried on for more than half-a-century,¹³ is more worthily housed, as well as properly conducted and adequately sup-

¹³ The Sheffield Medical School was opened in 1828.

ported? At present it is a fact that not only do all the towns in England larger than our own support flourishing medical schools, but several much smaller towns, namely, Bristol, Cambridge and Newcastle, are better provided in this respect than we are.

Two years and a half ago, as you are aware, the Council of Firth College expressed approval of a scheme for incorporation with the Medical School, provided the requisite funds were raised for a new building for the medical faculty. It was thought at that time that it might be erected as a wing of Firth College, and it was estimated that £4000 would be required for the building. It was soon found, however, that the small strip of land by the side of the college was not suitable for the purpose, and when the circular signed by the then Mayor (Mr. M. Hunter) and Master Cutler (Mr. A. A. Jowitt) was issued two months later, it was stated that £5000 would be required for suitable buildings. After receiving many kind and generous subscriptions from the public, as well as from members of the profession, we felt justified in purchasing from the Corporation, for about £1500, a site in the immediate neighbourhood of Firth College, and our Architect (Mr. J. D. Webster) was instructed to prepare plans. This he has done in a way that has met with the hearty approval both of the lecturers in the Medical School and of the Council of Firth College. As soon as the plans were completed we went one step further and obtained tenders for the work. These, as was no doubt to have been expected, exceeded the estimate we had formed of the probable cost, and we are obliged to defer the acceptance of any of them till we see our way more fully to the necessary funds.

We feel that it is now time that the appeal of the circular and the private canvass that has been made should be followed up by a public meeting, and we are in great hope that when this takes place, as we trust it will ere long, we shall have such a generous response as will at once ensure to the town a building well fitted for the requirements of a medical school,

and from which there shall go forth, year after year, a band of highly trained and in every way well-qualified men, to do battle with disease and ignorance, and to carry the good fame of Sheffield into all parts of the world.

In speaking of the advantages of a medical school, I have said that it assists the good work of the hospitals. This is certainly true, but we should not forget that the hospitals in their turn afford help to a medical school. Indeed hospitals must be considered to form an integral part of every school of medicine. Without the free use of such public institutions it would be impossible for medical students to receive an efficient training in many most important departments of their work; and hence the very serious duty imposes itself upon the managers of our hospitals to see that the valuable material for instruction at their disposal is not wasted. Otherwise much of the instruction which might have been obtained at a hospital, under the direction and supervision of those more experienced, would of necessity have to be gathered without help, in a way that might fairly be called "experiment" on the public. The gradation of the duties and responsibilities of the student, as he rises from a mere observer and recorder to be a prescriber and operator, is undoubtedly the best and safest method that can be adopted both for his own training and development and for the benefit of the sick, whether rich or poor, whether attended at their own homes or in public institutions.

On the whole I believe the laity, who rightly are the main promoters and managers, as well as supporters, of hospitals, act well up to their responsibility in this matter. The principle was well recognised at the inception of the Sheffield General Infirmary, the oldest of our local medical charities, for, as we were told in the very interesting medical history of Sheffield which Mr. Arthur Jackson gave us, when delivering the Introductory Lecture here two years ago, the objects of that Institution were set forth as being "for the relief of fellow-creatures in distress, for the improvement of medicine and surgery, and to afford to young men of the faculty opportunities

to see surgical operations and medical practice, and so to become more able practitioners and more useful members of the community." And accordingly we find that among the rules first adopted for the management of the institution there was one that "each physician and surgeon may introduce three pupils to see the practice of the house," a rule subsequently expanded, and the principle of which has been adopted by other similar institutions.

I fear, however, that the public is not equally alive to its duty towards the cause of progress in the healing art with regard to another means of knowledge which also tends to the limitation of "experiment" on our patients. If new remedies and new methods of treatment are to be discovered and used at all, it is obvious that their first trials and testings must be of the nature of experiments; and when it is considered that many such experiments must necessarily be attended with risks to life, to say nothing of other less serious risks, it seems marvellous that men and women, who daily feed and clothe and amuse themselves at the expense of the lives of the lower animals, should raise an unworthy and inhuman protest against the practice of carrying out such experiments upon the lower animals instead of upon man. I fear we must apply to the agitators against vivisection the words of Mr. Ruskin:—"As the true knowledge is disciplined and tested knowledge—not the first thought that comes—so the true passion is disciplined and tested passion—not the first passion that comes. The first that come are the vain, the false, the treacherous, if you yield to them they will lead you wildly and far, in vain pursuit, in hollow enthusiasm, till you have no true purpose and no true passion left." ¹⁴

But the patient researches of Pasteur and the brilliant results to which they are now giving rise in hydrophobia, whilst giving a side-blow to the opponents of vaccination, will strike at the root of this ignorant and vulgar opposition to scientific investigation in this country.

¹⁴ "Sesame."

I must refer to one other method by which medical science is greatly promoted, and for the prosecution of which we are to a large extent in the hands of the public. No knowledge within the reach of the practical physician can be more exact or more useful than that which is to be gained by an examination of the body after death. In the exigencies of general practice the objections to *post-mortem* examinations are felt from the side of the practitioner no less than they are from the side of the relatives of the deceased patient. But, till some plan can be devised for a more systematic opening of this great avenue of knowledge than is at present attainable, the public can, I am convinced, do much to increase the practical experience of their medical attendants, and so to benefit their fellow-sufferers, by letting reason modify their feeling, and withholding objections to such examinations in cases where the medical attendant considers them important.

We have good cause for thankfulness that in this and many other respects the laity are becoming more enlightened on matters concerning the public health and their own bodily interests. I do not doubt that a more general study of elementary Physiology will do still more in the same direction. The spread of such knowledge cannot fail to deter the public from trusting in any of the systems of quackery—plausible or absurd—some of which still linger within as well as outside the pale of the profession. It would also put them in a better position to estimate rightly the uses and the abuses of specialism in practice. This is a subject on which I had hoped to dwell, but it is time that I brought my remarks to a close. In doing so I would again address the students, to whose course this lecture is intended as an introduction.

Remember the ancient motto of our school—*Ars longa, vita brevis*—and, in steady perseverance in your work, cultivate modesty in manner, exactitude in habits, sobriety in thought, truthfulness in speech, courage in action, and, above all, honesty in purpose.

You will find that your experience of suffering need neither deaden your feeling nor depress your spirits; for happily the far larger proportion of the cases you will be called upon to treat will make good their recovery, and the pain you must witness or even inflict can generally be relieved or is recompensed by cure.

You will find the wide and humanizing interests of your work to be a safeguard against monotony, your vocation providing enjoyment as well as work and a sure means of livelihood. And as to further rewards than these, you will find them in the gratitude of your patients (not in their praise, for this is often enough awarded when least deserved and withheld when fairly earned), and in the satisfaction of seeing the kindly fruits of your well used opportunities.

Each of us has a mission in life, and you, in entering the profession, will be receiving your commission for a work which no one but you is appointed to perform. Now is your golden opportunity for preparation, and if you will now lay up a store of knowledge, it will, by right application, become wisdom, as fuel becomes fire, and, trusting in a strength higher than human, you shall in due time be initiated into—

“The secrets and the mysteries, whereof
The bounds are space—the time, eternity.”¹⁵

¹⁵ Dr. Wm. Frank Smith ('Meister Cornelius, the Worker.') Dr. Frank Smith delivered the Introductory Address at the Sheffield School of Medicine exactly 20 years ago, viz.: October 2nd, 1865.